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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,864	11/02/2001	Anuj Batra	TI-32504	7458
23494	7590	02/18/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			LIU, SHUWANG	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/003,864	Applicant(s) BATRA ET AL.	
	Examiner Shuwang Liu	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/26/02, 08/22/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because informal drawings were filed. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 12-17 are objected to because of the following informalities:
- (1) In claim 12, line 2, change "the good window " to - -a window- -; and
  - (2) In claim 13, line 2, change "the bad window " to - -a window- -;
  - (3) In claim 14, line 2-3, change "the good window, when a good window is being generated" to - -the window generated the good window.- -; and
  - (4) In claim 14, line 2-3, change "a bad window, when a bad window is being generated" to - -the window generated the bad window.- -;
- Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether "each window" refers to "good window", "bad window", or "good window" and "bad window".

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7 and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Mansfield (US 6,704,346).

As shown in figures 5-10, Mansfield discloses:

(1) regarding claim 1:

a method of intelligent frequency hopping, comprising:

sampling a plurality of channels in the frequency band (column 4, lines 41-62);

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identifying each channel in the plurality of channels as a good channel or a bad channel as a function of a predetermined factor (column 9, line 23-column 11, line 12); and

assigning the good channels to a good window and the bad channels to a bad window (column 11, line 14-column 12, line 45).

(2) regarding claim 2:

wherein sampling the plurality of channels samples all channels available to a network (column 4, line 63-column 7, line 25).

(3) regarding claim 3:

wherein the good channel is defined as a channel having at least a predetermined Quality Level of Service (column 4, lines 20-29 and column 9, line 23-column 10, line 56).

(4) regarding claim 4:

wherein the bad channel is defined as a channel having less than a predetermined Quality Level of Service (column 4, lines 20-29 and column 9, line 23-column 10, line 56).

(5) regarding claim 5:

wherein each window has at least four slots to which the channels may be assigned (see Table 2C).

(6) regarding claim 6:

wherein each window has an even number of slots to which the channels may be assigned (see B in Table 2C).

(7) regarding claim 7:

further comprising determining a ratio of the good channels in the band to the bad channels in the band (Table 2A).

(8) regarding claim 11:

further comprising sampling at least one channel in an original hopping sequence (column 4, line 63-column 7, line 25).

(9) regarding claims 12 and 16:

further comprising generating the good window by assigning the good channels to a window (column 11, line 14-column 12, line 45).

(10) regarding claims 13 and 17:

further comprising generating the bad window by assigning the bad channels to a window (column 11, line 14-column 12, line 45).

(11) regarding claim 14:

further comprising detecting the good channel, and assigning the good channel to the good window, when a good window is being generated (column 11, line 14-column 12, line 45).

(12) regarding claim 15:

further comprising the act of detecting the bad channel, and assigning the bad channel to a bad window, when a bad window is being generated (column 11, line 14-column 12, line 45).

(13) regarding claim 18:

wherein all of the channels in the good window are used before any channels in the bad window are used (claim 2).

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1, 8, 10, 19 and 20 are provisionally rejected under the judicially created doctrine of double patenting over claims 4 and 20 of copending Application No. 10/003,865. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter. Although the conflicting claims are not

identical, they are not patentably distinct from each other because the broader application claims would have been obvious in view of the narrow issued claims (see *In re Emert*, 124 F.3d 1458, 44 USPQ2d 1149).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claim 1 is provisionally rejected under the judicially created doctrine of double patenting over claim 3 of copending Application No. 10/263,520. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter. Although the conflicting claims are not identical, they are not patentably distinct from each other because the broader application claims would have been obvious in view of the narrow issued claims (see *In re Emert*, 124 F.3d 1458, 44 USPQ2d 1149).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.



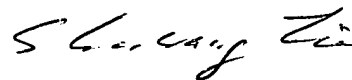
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**Conclusion**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is 571 272-3036. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shuwang Liu  
Primary Examiner  
Art Unit 2634

February 16, 2005